

WHAT IS CLAIMED IS:

1. A storage operation management program for operating and managing replication of a data area inside a storage or among a plurality of storages, comprising:

a step of accepting a request for generating a replication destination data area for a replication source data area;

a step of retrieving a data area capable of configuring the replication destination coincident with properties of a data area corresponding to a policy of the replication source data area from existing data areas; and

a step of instructing said storage to generate a replication pair of said data area.

2. A storage operation management program according to claim 1, which further includes:

a step of instructing said storage to generate a replication pair of said data area by use of a space area when the data area capable of becoming the replication destination coincident with properties of a data area corresponding to the policy of the replication source data area cannot be retrieved from existing data areas.

3. A storage operation management program for operating and managing replication of a data area inside a storage or among a plurality of storages, comprising:

a step of acquiring information of a designated data area;

a step of generating a data area of a replication destination in accordance with information of a data area of a replication source when the data area of the replication destination different from the data area of the replication source is set with said data area being the data area of the replication source;

a step of selecting the data area of the replication destination in accordance with information of the data area of the replication source; and

a step of managing the data area of the replication destination as the replication destination of the data area of the replication source.

4. A storage operation management program according to claim 3, which further includes:

a step of acquiring information of said storage; and

a step of judging whether or not said storage can set the data area of the replication source or the data area of the replication destination in accordance with information of the data area and with information of said storage.

5. A storage operation management program according to claim 3, which further includes:

a step of retrieving a route capable of connecting a storage having the data area of the

replication source and a storage having the data area of the replication destination; and

a step of acquiring information of said route and judging whether or not replication of data of the data area of the replication source to the data area of the replication destination is possible by use of said route in accordance with information of the data area and information of said route.

6. A storage operation management program for operating and managing replication of a data area inside a storage or among a plurality of storages, comprising:

a step of acquiring information of data areas managed;

a step of acquiring information of a route for connecting a storage having a data area of a replication source and a storage having a data area of a replication destination when replication is operated with one of said data areas as the data area of the replication source and the other as the data area of the replication destination;

a step of confirming information of said route when write occurs to the data area of the replication source;

a step of confirming information of said route in response to a replication start request from the data area of the replication source to the data area of the replication destination;

a step of judging whether or not connection of said route for connecting the data area of the replication source to the data area of the replication destination is made through a different route in response to information of the data area of the replication source and information of a line; and

a step of giving the storage an instruction of replication of the data area of the replication source to the data area of the replication destination by connecting said different route.

7. A storage operation management program for operating and managing replication of data areas inside a storage or among a plurality of storages, comprising:

a step of acquiring information of said data areas;

a step of acquiring an operation condition of the replication operation when the replication is operated with one of said data areas as the data area of the replication source and the other as the data area of the replication destination;

a step of judging existence/absence of omission of data stored in a storage area in accordance with information of the data area of the replication source, the operation condition of the replication and the operation condition of the storage area; and

a step of updating data of the storage area acquiring updating data in accordance with said judgment.

8. A storage operation management program according to claim 3, which further includes:

a step of judging whether or not a different data area can be changed as the replication destination as to the data area of the replication destination to the data area of the replication source of said storage.

9. A storage operation management method for operating and managing replication of data areas inside a storage or among a plurality of storages, comprising:

a step of inputting a request for generation of a data area of a replication destination to a data area of a replication source;

a step of retrieving a data area capable of becoming the replication destination coincident with properties of a data area corresponding to policy of the data area of the replication source from existing data areas in response to the input request; and

a step of generating a replication pair of said data areas on the basis of the retrieval result.

10. A storage operation management method according to claim 9, which further comprises:

a step of generating a replication pair of the data areas by use of a space area in response to the failure of retrieval of a data area capable of becoming the replication destination coincident with properties of the data area corresponding to policy of the data area of the replication source from existing

data areas.

11. A storage operation management method for operating and managing replication of data areas inside a storage or among a plurality of storages, comprising:

a step of acquiring information of a designated data area;

a step of generating a data area of a replication destination in accordance with information of a data area of a replication source when the data area of the replication destination different from the data area of the replication source is set with said designated data area being the replication source;

a step of selecting the data area of the replication destination in accordance with information of the data area of the replication source; and

a step of managing the data area of the replication destination as the replication destination of the data area of the replication source.

12. A storage operation management method according to claim 11, which further includes:

a step of acquiring information of said storage; and

a step of judging whether or not said storage can set the data area of replication source or the data area of replication destination in accordance with information of said data area and with information of said storage.

13. A storage operation management method

according to claim 11, which further includes:

a step of retrieving a route capable of connecting a storage having the data area of the replication source and a storage having the data area of the replication destination; and

a step of acquiring information of said route and judging whether or not replication of data of the data area of the replication source to the data area of the replication destination is possible by use of said route in accordance with information of said data area and information of said route.

14. An operation management method for storages having means for replicating data areas managed by said storage inside said storage or among a plurality of said storages, comprising the steps of:

acquiring information of the data areas managed;

acquiring information of a route for connecting a storage having a data area of a replication source and a storage having a data area of a replication destination when replication is operated with one of said data areas as the data area of the replication source and the other as the data area of replication destination;

confirming information of said route in response to occurrence of write to the data area of the replication source;

confirming information of said route in

response to a replication start request from the data area of the replication source to the data area of the replication destination;

judging whether or not connection of said route for connecting the data area of the replication source to the data area of the replication destination is to be made through a different route in response to information of the data area of the replication source and information of a line; and

establishing connection through said different route and making replication from the data area of the replication source to the data area of the replication destination.

15. A storage operation management method for storages having means for replicating data areas managed by said storage inside said storage or among a plurality of said storages and storage areas for acquiring updating data of the data area when said data area is replicated, comprising the steps of:

acquiring information of said data areas managed;

acquiring an operation condition of said replication when said replication is operated with one of said data areas as the data area of replication source and the other as the data area of the replication destination;

judging existence/absence of omission of data stored in said storage area in accordance with

information of the data area of the replication source, the operation condition of the replication and an operation condition of said storage area; and

updating data of said storage area acquiring the updating data in accordance with said judgment.

16. A storage operation management method for storages according to claim 11, which further includes:

a step of judging whether or not a different data area can be changed as the replication destination as to the data area of the replication source to the data area of the replication destination of the storage.

17. A managing computer of storages for operating and managing replication of data areas inside a storage or among storages, comprising:

means for acquiring information of a designated data area;

means for generating a data area of a replication destination in accordance with information of a data area of a replication source when a data area of the replication destination different from the data area of replication source is set with said data area being the replication source;

means for selecting the data area of the replication destination in accordance with information of the data area of the replication source; and

means for managing the data area of the replication destination as the replication destination

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of the data area of replication source.